Integrated Curriculum in the Primary Program

Common Understandings

An integrated curriculum allows children to pursue learning in a holistic way, without the restrictions often imposed by subject boundaries. In early childhood programs it focuses upon the

inter-relatedness of all curricular areas in helping children acquire basic learning tools. It recognizes that the curriculum for the primary grades includes reading, writing, listening, speaking, literature, drama, social studies, math, science, health, physical education, music, and visual arts. The curriculum also incorporates investigative processes and technology. It emphasizes the importance of maintaining partnerships with families; having knowledge of children and how they learn; and building upon the community and cultural context. Integrated teaching and learning processes enable children to acquire and use basic skills in all the content areas and to develop positive attitudes for continued successful learning throughout the elementary grades.



Rationale for Integrating the Curriculum

Integration acknowledges and builds on the relationships which exist among all things. An integrated curriculum implies learning that is synthesized across traditional subject areas and learning experiences that are designed to be mutually reinforcing. This approach develops the child's ability to transfer their learning to other settings.

When we try to pick out anything by itself, we find it hitched to everything else in the universe.

Muir, 1911

Research also suggests that an integrated approach to learning is brain compatible. "The brain learns best in real-life, immersion-style multi-path learning...fragmented, piecemeal presenting can forever kill the joy and love of learning" (Jensen, 1996). The more connections made by the brain, the greater the opportunity for making high level inferences.

Integrating the curriculum is also reflective of developmentally appropriate practice. The curriculum is integrated so that children's learning occurs

primarily through projects, themes, or topics that reflect children's interests and suggestions. Projects and themes are valuable instructional tools for accommodating all learners in the classroom. Skills are taught as needed to accomplish projects (Bredekamp, 1992).

Characteristics of an Integrated Curriculum

An integrated program includes:

- Experiences to develop children's attitudes, skills, and knowledge and to help them make connections across the curriculum
- Activities that provide for a range of abilities
- Activities that are both teacher-initiated and directed and child-initiated and directed
- Whole class, small group, and individual experiences
- Opportunities for critical and creative thinking
- Teacher, peer, and self-assessment
- Opportunities to experience learning as a meaningful whole

Getting Started

Learning through an integrated approach based on collaboration with children may be new to some children, parents, and teachers. A teacher can begin to use an integrated approach by working in cooperation with other teachers and with children in active learning situations such as:

- Activity-based mathematics
- Cooperative learning
- Readers' and writers' workshop
- Learning centers
- Multi-age grouping

By working in a collaborative manner, the teacher gains confidence and flexibility and realizes that children can take responsibility for their own learning. In turn, children gain the dispositions, skills, and knowledge they need to be successful lifelong learners.

It is important to help parents understand how an integrated approach is beneficial for their children. After hearing about or making a brief observation in a classroom where children are learning in an integrated manner, parents may misunderstand what is happening. Teachers can show parents that in an integrated classroom there is an underlying structure which combines an understanding of how children learn; familiarity with the district or state standards and benchmarks and goals and curriculum areas of the program; and knowledge of children in general, as well as specific knowledge of the children currently in the class. This structure provides a powerful base for facilitating learning.

Teachers can demonstrate the value of integration by:

- Holding informational meetings
- Providing copies of *The Primary Program* Active Learning Position statement and the Integrated Curriculum position statement.
- Providing materials to help interpret what is taking place in the classroom
- Helping children to reflect upon and articulate what they have learned

There are many possible routes on the journey leading to an integrated approach. There is no one "right way". The comfort level in starting, the length of the journey, and the rate of progress of teachers will vary. However, as the curriculum becomes less fragmented, the teacher sees new possibilities for integrated learning and teaching.

Planning for an Integrated Curriculum

The primary program advocates learning experiences which are relevant, purposeful, and worthwhile. If experiences are to engage children, they need to be shaped by children's interest and enthusiasm. This means choosing themes, topics, projects, or areas of study based on the knowledge children have and constructing a plan which is driven by the children's curiosity. This does not mean an undirected, ever-changing scavenger hunt in search of answers to the question of the day. The children's need for inquiry becomes the vehicle for the integration. The teacher's responsibility is to construct the plan which will provide the scope and depth necessary to ensure a valuable educational experience for all children. To provide direction and balance, a teacher needs to make long range or yearly plans which can be reviewed and adjusted throughout the year. A long-term plan should consider:

- The children's strengths and interests
- The teacher's strengths and interests
- State or district standards and benchmarks
- The goals of the primary program
- Assessment and evaluation
- School and community resources



The key to planning an integrated child-centered curriculum is balance—a balance among large group, small group and individual activities, a balance in curriculum and content areas, and a balance between teacher-directed and child-initiated experiences.

Schwartz & Pollishuke, 1991

Children's Strengths and Interests

Beginning the year with a unit, theme, or topic such as "Me" or "Getting to Know You" allows the teacher and children to learn about one another and discover shared interests. While the class is learning about one another, the teacher and children can agree upon the routines necessary to facilitate a harmonious classroom. Involving children in arranging and decorating the classroom, setting up storage systems, and suggesting topics builds the foundation for motivation and commitment to one another. Many teachers find a class brainstorming session to determine areas of interest is an essential first step in establishing a learner-focused curriculum. These suggestions may be listed, prioritized, displayed, and revisited during the year.

The key factor is inviting all class members, including the teacher, to provide suggestions and participate in developing a list of agreed-upon topics for study. This list becomes the starting place for the teacher in planning activities and experiences which provide a balance of content and process.

The Teacher's Strengths and Interests

Just as children's wonder and joy drives their learning, so can the teacher's interests and enthusiasm. Children need to see their teachers as learners and as human beings. The teacher's willingness to share what he or she values shows the children that learning is a lifelong activity and that their teacher is a person who thinks and feels and cares.

In long range planning, teachers need to ask: "How can I use my interests and talents to enhance learning and still incorporate the children's interests? What contributions can I make by sharing?" Such sharing may include:

- Personal culture
- Love of literature
- Experiences with writing
- Interest in sciences
- Recreational activities
- Interest and talent in fine arts
- An inquiring attitude



State or District Standards and Benchmarks

An integrated curriculum provides a framework through which state or district standards and benchmarks can be met. For this reason, the teacher has the standards and benchmarks firmly in mind when planning the learning experiences for the theme or project. Planning work should begin by stating the standards and benchmarks being addressed. The strength lies in the standards and benchmarks being met in a meaningful, real-world, applied way rather than in a contrived, artificial context. When learning is meaningful the learner is able to transfer the learning to new situation. The type of learning that occurs through integration also fosters the development of lifelong skills such as self-directedness, organization, problem solving, communication, and self-assessment.

Goals of the Primary Program

Planning for an integrated curriculum begins with a consideration of children's needs, interests, questions, prior knowledge, and experiences. The goals and the curriculum areas of the primary program, as well as state or district standards and benchmarks will guide the teacher's planning. The learning dimensions (dispositions, skills, and knowledge) in each curriculum area also need to be considered when designing projects, themes, or topics of study with the children. The teacher

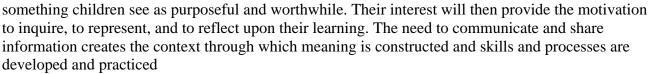
weaves knowledge of the curriculum and the interests of children into the fabric of the classroom curriculum.

It is important to note that not all goals or curriculum areas can be emphasized equally in every project, theme, or topic of study. However, the teacher ensures that a balance of experiences related to the goals and curriculum areas of the program is achieved over the course of the year. Throughout the year, at the conclusion of each project, theme, or topic, this balance is considered as part of

ongoing evaluation and planning.

As the teacher plans appropriate learning experiences it becomes obvious that not all curriculum content can be explored in an integrated way. For example, the introduction of place value in mathematics need not be related to the project and might better be taught using concrete materials designed specifically for enhancing development of concepts in mathematics. Once understood, the concept of place value could subsequently be integrated into other activities and its connections in the real world highlighted.

To make the curriculum come alive for the children and the teacher, the project, theme, or topic of study must be



Assessment and Evaluation

In making a long-range plan for assessment and evaluation, the teacher needs to establish a system which facilitates:

- Each child's learning being considered on a regular basis
- Information being collected on all goal and curriculum areas
- Information being collected on state or district standards and benchmarks
- Information being recorded and stored
- Children being involved in the process
- Sharing and transferring information

A long-range plan for assessment and evaluation also needs to include ongoing questioning of how the information gained through interaction with children can be used to enhance, modify, and adapt further assessment, the curriculum, and the environment.

School and Community Resources

Human Resources

Who are the people who can support and enhance the learning experience?

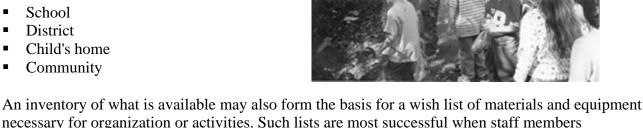
- Children
- **Parents**
- Community
- Teacher-librarian
- Learning assistance teacher
- District personnel
- Specialist teachers

What cultures are represented in the community? What organizations could connect with our class, (multicultural societies, ethnic organizations, fine arts groups, service clubs, senior citizens, and elderly care facilities)?

Materials and Equipment

What materials are available?

- Classroom
- School
- District
- Child's home
- Community



necessary for organization or activities. Such lists are most successful when staff members collaborate to make the list of the items. In this way a plan can be developed to build upon available resources.

Physical Facilities

What space is available in the classroom, and what is its best use? Many teachers find that developing a partnership with another teacher to help one another with this task is a productive, timesaving endeavor. Children, too, have valuable insights into how space can be arranged. What areas are available in the school?

- Multi-purpose room
- Gymnasium
- Storage area

What community facilities are available for real world experiences?

- Parks and outdoor environments
- Businesses
- Museums and libraries
- Community services

What features of the natural environment could facilitate learning?

- Weather
- Geography
- Natural resources
- Historic sites



Ways to Integrate the Curriculum

Three ways to integrate the curriculum are:

- By using themes
- By using projects
- By using individual and small group studies

Themes

Theme Planning

One approach to integrating the curriculum is through theme studies. The definition of theme depends upon the model being used. It is not the purpose of this document to choose one model over another. Teachers may have received training in a particular model and become skilled in using it. In some cases, an entire staff may have adopted a model.

When the planning of the themes begins with children and involves them throughout the planning process, rich opportunities for learning are created. Integrated theme studies provide a common focus for the teacher and the children and create a sense of purpose and community within the classroom. Choosing the topics of study based on children's interests provides motivation and enthusiasm for learning.

By capitalizing on their interests, children's dispositions, skills, and knowledge are developed in relevant, meaningful ways. The need to know provides reasons for inquiry and communication; one class became advocates for bicycle safety following a serious accident in their community. This provided reasons for active learning in all curriculum areas.

Children involved in a theme or project need their teacher to help them reflect on their learning and lead them to make further connections between prior and new knowledge. Teachers can acknowledge children's increasing repertoire of skills and can demonstrate how these skills can be applied to other situations.



Teachers who are beginning to use themes may wish to use themes developed elsewhere. It is important to adapt such themes to meet the needs of each group of children. A rubric and several templates are provided further on in this chapter which may be used when designing and evaluating themes.

The following discussion of various types of theme studies may help teachers to understand the advantages and limitations of several methods of planning.

Types of Themes

Teacher Team and Class Initiated, Team Planned and Supported

This type of theme is developed by teachers who seek direction from the children and then collaborate to plan for the children's learning.

Advantages

- Working together, multiple resources, energy, and enthusiasm
- Teachers grow professionally in a collaborative approach
- Through their interactions with other adults, teachers get to know the children better
- Teachers gain skills and receive support which may enable them to take greater risks
- Children benefit from working with other children
- Children learn from the collaboration of others

Limitations

- Team work may seem to be too time consuming
- Asking for children's input requires teachers to relinquish some control

Child Initiated, Child and Teacher Planned and Supported

Topics for integrated class themes may develop from the interests of one or two children. Their enthusiasm may spread to all the children in the class. Based on the response, the teacher(s) plan(s) further. If the theme is broadly developed, there are usually enough choices to sustain the interests of all the children for an extended period.

Advantages

- Enthusiasm is high when children and teachers work together.
- Children learn skills and strategies and gain knowledge through the study of worthwhile topics.
- Children learn from the efforts of others and gain benefits from an in-depth study.
- Children begin to take some responsibility for their own learning.

Limitations

- Care must be taken to stimulate rather than overwhelm the children with teacher ideas.
- If used exclusively, this may not allow for individual differences.

Teacher Initiated, Planned, and Supported

This type of theme study is usually short in duration and specific in purpose. The theme suggestions may be used to teach other skills and strategies such as brainstorming, clustering, making lists, working cooperatively, recording, and ways of representing ideas which children need in order to embark on independent studies.

Advantages

- The teacher has a vehicle for extending children's capabilities.
- Children gain confidence in learning new skills.
- It may give teachers confidence in allowing children more opportunities to make decisions.

Limitations

- Teacher direction is high.
- Teacher planned themes used too frequently may discourage children's initiatives.
- Topics may be too narrow.
- Children have little choice.
- Children have fewer opportunities to be selfmotivated.



Teacher Team Initiated and Planned, Whole Staff Supported

With this type of theme, the structure and the duration will vary according to the resources available. The topic and the activities are set.

Advantages

- Teachers work collaboratively.
- Teachers benefit from the interchange of ideas.
- Children learn from teachers' collaborative approach.
- The work may lead to more permanent ways of working; (team planning, sharing of resources, regrouping of children, more hands-on activity for children).
- Opportunities for parent and volunteer involvement lead to an understanding of approach.

Limitations

- Organizationally complex
- Short in duration
- Planned only occasionally
- Little student involvement in planning
- Rigid time periods for activities
- Activities may often allow for little creativity

Sample Theme

This sample theme is included to illustrate how a theme might develop. Keep in mind there is no one right way.

School Community

Each year children enter school excited about the beginning a new year. Whether the children come from a traditional, looped, or multi-age classroom or are just beginning their school experiences as kindergartners, building a classroom and school community is a goal of primary teachers.

This theme, school community can be adapted to fit the needs of the teacher and children at different grade levels and will accommodate children of different ability levels. Children have opportunities throughout the school community unit to collaborate with peers. Learning clubs, multiple intelligence centers, and partner experiences all lend themselves to student collaboration. Learning clubs can be formed based on interest, need, and ability.

Resources related to the topic are available everywhere in the classroom. Students can easily access the materials and use them throughout the day.

Considerations for developing the theme were as follows:

- Meaningfulness and relevancy to students' lives
- State and district standards, benchmarks and curriculum goals
- Age appropriateness
- Opportunities for real world experiences
- Background knowledge of the children
- Opportunities for connections throughout the year
- Opportunities for child-directed activities

Conceptual Key Points

Interdependence

In order for an organization to operate efficiently, there needs to be mutual dependence upon each other.

Diversity

Diversity is what makes each person special. As children discover how to accept and respect differences, they become stronger individuals.

Relationship

Relationships lead to valuable life-long experiences and may change and grow over time.

Significant Knowledge Key Points

Main ideas to be understood by children:

- Each child is unique and contributes in his/her own way to a classroom community.
- Children's cultural backgrounds are important to their unique character.
- A classroom community consists of people working together and respecting the needs of all members.
- People rely on each other and perform certain jobs.
- The environment affects how people live and work.

Skill Key Points

Examples of skills children are expected to develop:

- Reaches standards, benchmarks and curriculum goals
- Reads and responds to self-selected books
- Combines drawing and writing to compose thank you letters to school staff
- Speaks and listens in a community circle
- Is able to sequence events that occur in the school day
- Sorts, classifies and displays information using graphs. (Examples include eye colors of the children in the classroom, means of transportation getting to and from school, and the number of girls and boys in the class.)
- Counts the number of adults that work in the school

Resources

- Study trips, class speakers, literature, news media, materials, technology, the Internet
- Walking study trips in and around the school
- Visiting with school workers while touring the building
- A variety of pictures and storybooks that reflect diversity
- Dolls and puppets of both genders and of different cultures and races for children to use with role playing
- Guest speakers (principal, secretary, counselor, food servers, custodian)
- Books

Aliki We Are Best Friends
Brown, Marc Pickle Things

Chardiet, Bernice & Grace Maccarone The Best Teacher in the World

Cohen, Miriam Jim Meets the Thing or Liar, Liar, Pants on Fire

Cole, Joanna The Missing Tooth

Heine, Helme Friends

Heinst, Marie My First Number Book Houston, Gloria My Great-Aunt Arizona

Keller, Holly The New Boy

Lobel, Arnold Frog and Toad are Friends
Micklethwait, Lucy I Spy Two Eyes: Numbers in Art

Mills, Lauren The Rag Coat
Pfister, Marcus The Rainbow Fish

Schwartz, Amy
Annabelle Swift, Kindergartner
Thaler, Mike
A Hippopotamus Ate the Teacher

Viorst, Judith Rosie and Michael Zolotow, Char A New Friend

Welcome Procedure (A daily activity to begin each day.)

- State an appreciation for a peer
- Invite someone to play with you at recess today
- Write or draw an act of kindness to a friend in the classroom.

"CUE" Connection (creative, useful, emotional hook to stimulate interest in the theme).

- KWL-What do children know about the topic?
- What do they want to learn about the topic?
- After the theme unit, what learning has occurred as a result of the study?
- Read Chrysanthemum by Kevin Henkes

Me in a Bag Activity

Dear Parents,

First grade students are doing an activity called "Me in a Bag", to help the members of our classrooms get to know each other and to establish a classroom community. This activity provides the opportunity for us all to learn things about the people we will be sharing our school with this year.

Please help your child choose 2 or 3 objects such as pictures, special treasures, or any meaningful items that let others know more about them. All objects must fit inside the brown bag provided.

We will share our bags on Thursday, August 28th and Friday, August 29th. We will be keeping our bags at school for several days, so do not send items that are needed at home.

Thank you for helping with this activity.
Sincerely,
First Grade Teachers

Community Circle (a whole class activity in which the goal is to build trust and relationships with the learners in the group).

- I am happy when...
- I showed caring when...
- Something I like to do at school is...
- "Me in a Bag"

Multiple Intelligence Activity Centers:

Word: Write and/or draw thank you letters

or books to staff members.

Logic: Make friendship pudding or another

snack (invite the cooks to help).

Self: Make a flip book showing people

and the places they work at school.

Body: Videotape children acting out jobs

people have at school.

Music: Sing and play the game "Do you

know the job I do?

Sing and record on tape friendship songs such as "The More We Get

Together."

Nature: Pick up trash in and around the

school.

Picture: On overhead transparencies,

children draw a favorite part of their

school day.

People: Children participate in computer

activities taking turns with software.

Do you know the job I do?

Make arrangements to take your class on a tour of the building to see school staff at work. If possible, schedule your tour so people know when you're coming and can talk briefly about their jobs and answer questions.

Following the tour, have the students sing the words below to the tune of "The Muffin Man." Divide them into small groups and give each group a person's job to pantomime. One group sings the first verse while pantomiming the job.

The rest of the class sings the second verse and then names the job and the person who does the job at school.

Do you know the job I do,
The job I do, the job I do?
Do you know the job I do,
To help you at this school?
Oh, yes, we know the job you do,
The job you do, the job you do.
Yes, we know the job you do,
To help us at this school.

Closure

- I'm going to name some of the jobs here at school. If you know the name of the person who does that job, raise your hand. (As you name each of the jobs, ask someone to name the person.)
- Think about why we need to get to know the adults who help us here at school. Be ready with a reason in case I call on you
- Think of a reason why it's important to thank our classroom guest for coming. Tell your neighbor.

Lions-Quest: Skills for Growing

Assessment Plans:

- Observe how children work and play cooperatively (learning clubs, playground)
- Work Sampling System checklist (personal and social development section)
- Anecdotal notes while children carry out multiple intelligence activities and at various times throughout the day when children are working
- Community circle observations
- Student interviews to reflect children's thought processes
- Student's self-assessments describing something they did well at the end of each school day. This can be shared in a variety of ways: with a peer, learning club, class, teacher or family members.

Work Sampling System FWS A Self concept 1. Shows comfort and confidence with self Not Yet□□□ In Process□□□ Proficient□□□ Not Yet□□□ 2. Shows initiative and self-direction in actions In Process□□□ Proficient□□□ FWS В Self control Not Yet□□□ 1. Shows comfort and confidence with self In Process□□□ Proficient□□□ 2. Shows initiative and self-direction in actions Not Yet□□□ In Process□□□ Proficient□□□ 3. Manages transitions and adapts to changes in routing Not Yet□□□ In Process□□□ Proficient□□□ \mathbf{C} Approach to learning FWS Shows eagerness and curiosity as a learner Not Yet□□□ In Process $\Box\Box\Box$ Proficient□□□ 2. Begins to make independent choices of materials, activities, and work/play partners Not Yet□□□ In Process□□□ Proficient□□□ Approaches tasks with flexibility and inventiveness Not Yet□□□□ 3. In Process□□□ Proficient□□□ Not Yet□□□ Sustains attention to work over a period of time In Process $\Box\Box\Box$ Proficient□□□ D Interactions with others Interacts easily with peers when playing or working cooperatively Not Yet□□□ In Process□□□ Proficient□□□ Not Yet□□□ Interacts easily with adults In Process□□□ Proficient□□□ 3. Participates in the group life of the class Not Yet□□□ In Process $\Box\Box\Box$ Proficient□□□ Plays cooperatively in group games Not Yet□□□ In Process□□□ Proficient□□□ Not Yet□□□ 5. Shows empathy and caring for others In Process $\Box\Box\Box$ Proficient□□□ \mathbf{E} **Conflict resolution** Begins to use discussion and compromise to resolve conflicts Not $Yet \square \square \square$ In Process□□□ Proficient□□□ Seeks help when unable to resolve conflicts independently Not Yet□□□ In Process□□□ Proficient□□□

Meisels, S. J., Jablon, J. R., Mardsen, D. B., Dichtelmiller, M. L., & Dorfman, A. B. (1994). *The Work Sampling System*. Ann Arbor, MI: Rebus, Inc

Tools for Planning and Evaluating Theme Work

The following pages contain a rubric, templates, and checklist to use when planning themes, evaluating an existing theme, or reflecting on completed theme work.

Teacher Checklist

Considerations When Choosing a Theme

- 1. The theme is developmentally appropriate.
- 2. The theme is broad enough to support state or district standards and benchmarks.
- 3. The theme connects many curriculum areas in a meaningful rather than contrived way.
- 4. The theme is free of or addresses gender, racial, cultural, or other biases.
- 5. The theme is engaging to teacher and students.
- 6. Quality resources are available to support the theme.
- 7. The theme promotes the use of multiple intelligences.
- 8. The theme reflects real world experiences.
- 9. The theme will culminate in a variety of demonstrations of learning.

Reflections After Theme is Completed

- 1. Was this theme developmentally appropriate?
- 2. Were state or district standards and benchmarks achieved?
- 3. Were there adequate resources to support learning?
- 4. Was the length of time devoted to the theme appropriate?
- 5. Did this theme meet the needs of diverse learners?
- 6. What would I keep the same?

Template 1

The Inquiry Cycle

Topic/Concept:			
Teacher Name(s)			
1.	Explore Topic: "Mucking around"/outline the activities which enables children to explore the topic.		
2.	Develop Focusing Question(s): List the questions which were developed to focus the investigation.		
3.	Collect Ideas: List some of the resources you and the children used to gather information, (books, media, technology).		
4.	Collaborate with Others: Give one or two examples of ways in which children worked with others in and/or out of the classroom. If you used the Internet, please include a few good URLs.		

Template 1 (continued)

5.	Share Ideas: What activities/processes did the children use for sharing their work with others?
6.	Reflect on the Process: What assessment methods did you and the children use?
7.	District Curriculum: What standards and benchmarks from state or district curriculum were a part of the inquiry?
8.	Invitations for Further Inquiry: What possibilities for further inquiry came up during this cycle?
Ada	pted by Johnston, Meehan & Shain from Harste, Burke and Short, 1991.

Template 2

Recording the Learning

Topic of investigation				
Teacher Name(s)	Teacher Name(s)			
Resources —List some of the resou	rces used. Please include multimedia and the Internet if applicable.			
	-			
Central Concept—The overall	Process/Skills Used—State or district curriculum standards & benchmarks,			
learning goal(s) of the	Language, Art, Math, Drama, Science			
investigation.				
	Concept Web—List or web the sub concepts which are related to the overall			
	learning goal.			

Template 2 (continued)

Investigations—What were some of the investigative activities which engaged children in the unit? Activities should reflect the concepts and processes on page 1.	Extensions—What are some further investigations you are considering and how will you help children apply what they have learned to another situation?
Explain, Clarify, and Share to Make Connections—Describe one or two ways children were given opportunities to explain, clarify their thinking, and share ideas in order to make connections.	
Assessment—How did the children represent their learning? Assessment should reflect the learning goals listed at the beginning of this template.	

Template 3

What will we study?
what will we study:
What are the important concepts to be developed? (web of sub-topics and questions)
What are the resources we can use to answer our questions about this topic?
What are the resources we can use to answer our questions about this topic.
How will we find the resources?
How will we organize what we find out?
Tiow will we organize what we find out:
How will we show what we know? (Assessment and Evaluation)

Discussion of Theme Template 3

What will we study?

Brainstorm possible topics with the children the first day of school. Keep a running list for group or individual exploration.

What are the important concepts to be developed?

Create a web on chart paper with other teachers and with the children. Ask:

- What do we think we already know about this topic?
- What do we wonder about when we think about this topic?

Keep revising this list as learning occurs.

What are the resources we can use to answer our questions about this topic?

The children and teacher list (possibly on the topic web) all the available resources which would provide information. Resources include books, art collections, displays of real objects related to the topic, child created displays, experts outside and inside the classroom, technological resources, and places to visit. The list is limited only by the imagination.

How will we find and use the resources?

With the children, plan activities for locating, collecting, and finding the needed resources. Write letters to outside experts, make phone calls to parents (children can make phone calls, too); go to the library, make the arrangements for excursions, and do whatever it takes to support learning.

How will we organize what we find out from the available resources?

Develop some strategies to record what you learn: (videotape, write individual and class journals, logs, and other writings, construct, do artwork). Classroom activities center around the learning taking place.

How will we show what we know?

This is considered throughout the period of study. What are the learning goals and what will we design, construct, write, draw, tape, or develop to demonstrate our learning to a significant other? (See the *Assessment and Evaluation* section for ways to document learning.)

Theme Rubric

Curriculum Indicators

High Quality			Poor Quality
Identifies and supports	Supports district	Little connection to	No connection to district
district standards and	standards and	standards and	standards and
benchmarks or	benchmarks or	benchmarks or	benchmarks or
curriculum goals	curriculum goals	curriculum goals	curriculum goals
Connects many	Connects at least three	Connects two areas of	Focus is only on one
curriculum areas	areas of the curriculum	the curriculum	area of the curriculum
Promotes cultural	Respects cultural	Ignores cultural	Shows disrespect for
diversity	diversity	diversity	cultural diversity
Real world, worthwhile,	Real world connection	Narrow focus rather	Not worthwhile
and meaningful		than conceptual	

Instructional Indicators

High Quality			Poor Quality
Accommodates each student's ability level	Provides for multiple ability levels	Age appropriate	Not age appropriate
Engages all learners, including teacher	Engages most learners	Engages only half of the learners	Not engaging
A variety of resources, including technology, easily accessed by students	Adequate resources, including technology, easily accessed by students	Limited resources, but easily accessed by students	Few resources, distributed only by teacher
Balances skill instruction with constructivism, investigation, inquiry, and problem solving	Balances skill instruction with at least two other types of learning	Mostly skill instruction	Skill instruction only
Balances child directed with teacher directed	Some direction comes from the child	Teacher directed	Student participation discouraged
Skillful ways of grouping	Flexible rather than fixed groups	Mostly ability level grouping	Ability level grouping only
Many opportunities for collaboration	Some opportunities for collaboration	Little opportunity for collaboration	Collaboration discouraged

Assessment Indicators

High Quality			Poor Quality
Teacher uses many ways of assessing process and outcomes of students in a natural context	Teacher uses at least two ways of assessing in a natural context	Assessment takes place in a natural context	Assessment is artificial and contrived
All students have an opportunity to demonstrate their learning in a variety of ways, including use of technology, to others, including parents	All students demonstrate their learning to at least one person, other than the teacher	A few of the students demonstrate their learning to others	Learning is only demonstrated to the teacher
All students self-assess	Opportunity for self-assessment	Little opportunity for self-assessment	No self-assessment

Project Work

Project Planning

Projects as part of the Primary Program are highly recommended as a way to make sense of information in children's lives. Projects involve the investigation of a topic but differ from *traditional* thematic units because they are fully integrated. In project planning the disciplines are naturally combined; there is no need to provide distinctions or to weigh the number of activities in each discipline. The goal is to learn about something, using all the available resources and incorporating the skills, knowledge, and dispositions needed to accomplish that goal.

The project approach is firmly grounded in the principles and ideology of the Primary Program, and should be part of a balanced curriculum. The skills, knowledge, and dispositions acquired by formal instruction are better learned and remembered when applied in a real context. Using projects with children is an opportunity for application and consolidation of the learning we value (Katz & Chard, 1989).



The types of activities involved in a project reflect the principles of active learning:

- Children choose from available activities, materials, and experiences for a substantial portion of the day
- Experiences are meaningful and learner-centered
- Children have opportunities to ask questions, solve problems, and think independently
- There is a range of expectations for all children
- Children have opportunities to make decisions and to be creative
- Learners are respected and trusted
- Adults learn along with children
- Mistakes present opportunities to learn
- Content areas are integrated
- Assessment is a part of the daily routine

Children are decision-makers and planners throughout the process. The teacher leads and structures the project based on the children's ideas and contributions. "The project approach provides a context in which all aspects of children's minds can be engaged, challenged, and enriched" (Katz & Chard, 1989).

A Sample Project

The description that follows was developed and implemented in a kindergarten classroom. *It is intended as a model to be adapted to the individual interests of the children in other classrooms at other levels.* The topic for the project is a decision made by students and teachers together, and is *always* connected to the children, their families, and communities.

A Classroom Grocery Store (narrative in the teacher's voice) Background

The idea for developing a classroom grocery store grew out of our investigation of places in our community. Our small town setting enabled us to take mini-fieldtrips to many of the local stores, observing the interdependent roles of community members and the effects on our lives. We discussed the possibility of converting some of the centers in our classroom into the places we'd learned about. We chose the grocery store as a place to start. At that point we revisited the town store with a list of specific questions in mind for setting up our model. An example of the time line, sample activities, and assessments follow. As one assessment, all activities were recorded in a classroom journal at the end of each session.

Day 1. Mind webbing—"Tell me everything you already know about grocery stores," and "What do we wonder about setting up our own store?" were mapped in a project web and served as our guide for planning and developing. It also served as an ongoing record of our learning. We decided to visit the town grocery store again with our questions in hand.

Day 2. We returned to the town store to observe the things we were wondering about. "How is the food organized? What jobs do people do in the store? What signs or labels might we need to make? What items do we need to collect for our store?"

Upon return to our classroom, we brainstormed a list of items we'd like to collect for our classroom store. This became a note to send home request help from parents in finding some of the things on the list. We designated a collection site which was the dramatic play area. It was agreed that it would be closed until the collection was finished. We decided to put away a number of items in that area so that there would be room for the store.

Day 3-5. Collection days—We revisited the initial brainstorming activity (Day 1) and revised "what we know." (This is an ongoing activity. Revision should occur every 2–3 days). We reviewed items daily that were coming in. We talked about how we might use them and checked them against our wish list.

Project planning

Project in progress

- **Day 6.** Committee assignments. The question was posed, "What jobs need to be done in order to set up our store?" We decided upon these committees: shelf building, sign making, grocery sorting, grocery stacking, money and coupon sorting, grocery labeling, and furniture moving. (This committee drew a floor plan for the store which was approved by the rest of the group.) Responsibilities for each committee were outlined. (This later was included in the children's portfolios indicating their role on the committee.) We gathered the materials we would need for each committee.
- **Day 7.** Committee work began. This was videotaped and reviewed in terms of the designated responsibilities. The grocery sorting group had to decide who would be responsible for each category (decided earlier). When they watched the video they could check to see if they were doing their job. (This assessment related to our overall curricular goal of making a positive contribution to the group.) This could have also been used as an assessment in classification, depending on your goal.
- **Day 8.** Finished committee work. Each group reported to the others, showing us their work and providing explanations for why they did something a certain way. For example, the shelf builders had to use metal fasteners instead of staples because of the thickness of the boxes; the sign makers read each sign and told us the purpose of putting the sign in a particular place.
- **Day 9.** Read class journal for developing our grocery store. We set a date for the official opening and made a poster announcing it to the rest of the school. We scheduled times for each child to have a turn in the store. We talked about certain items which would be popular (such as the cash register) and brainstormed ways to share so everyone would get a turn.
- **Day 10.** Grand opening. We watched our video and celebrated with snacks (made in the deli, of course). Individual conferences regarding responsibility and cooperation followed in the next two weeks.

Project consolidation

Examples of Each Feature in the Grocery Store Project

Parents as a Resource

Parents were essential to the collection of materials. They helped their child collect and bring grocery items and other materials on the list generated by the class.

Classroom Displays

- Our mind web was displayed and revised as a record of our learning.
- Our daily journal was available in the reading corner.
- Various representations (drawings, written committee plans, paintings) were displayed in the room.

Children Making Choices

The children made decisions about:

- Doing the project
- What materials we would need
- What we wanted to find out
- How to design the store
- On which committee they would serve and what role they would play
- How shelves would be built, groceries labeled and sorted, and the room arranged

Learning Opportunities

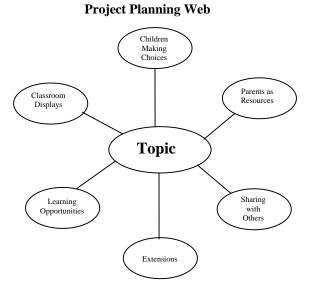
- The children acquired knowledge as they answered their "I wonder" questions.
- The children acquired skills through their committee work, planning, designing, sorting, cooperating, communicating, and problem-solving.
- The children strengthened the dispositions of effort and perseverance as they followed through on the project.

Extensions

- The quality of the model (the grocery store) was dependent upon the amount of investigating.
- The children continued to make changes and improvements as they worked with the model. The connection between the model and the real thing became increasingly significant.

Sharing with Others

- An invitation was extended to others in the school.
- Parents stopped to visit the store and learn about their child's contributions to the project.
- The conference served as a permanent record to share with the child and parents.



Tools for Evaluating Project Work

Following are several tools for evaluating project work. The first tool is for the teacher to use in evaluating the project and how it went. The second tool is an example of a form for the teacher and child to fill out together after the project has been completed. It is an example of what was used for the grocery store sample project. The third form is an example of a child's self-assessment. The last form is an example of the teacher's record of the child's project work.

Criteria for Evaluating Project Work

Topic:

- ✓ How appropriate is the project for children?
- ✓ Does it focus on real phenomena?
- ✓ Is it part of the children's experience?

Phase I:

- ✓ Web developed with the children; shows children's interests, questions, sub-topics
- ✓ Teacher and children both used field notes
- ✓ Preliminary drawings, paintings, stories, structures
- ✓ Children's plans, interview schedule

Phase II:

- ✓ Children's interview questions and answers
- ✓ Drawings, paintings, models, recordings of findings
- ✓ Resources used: objects, exhibits, visits from experts, excursions, readings
- ✓ Experiments, graphs, descriptive accounts

Phase III:

✓ Display of children's work; culminating event

Teacher's own evaluation:

- ✓ What did the children learn
 - Knowledge, skills, dispositions and feelings
- ✓ What opportunities did the children have to:
 - Investigate, find things out, interview, speculate, discuss, hypothesize, estimate, experiment, problem solve, evaluate?
- ✓ What role did the children take in making their own decisions for the direction the project would take?
- ✓ How did the project relate to other aspects of the curriculum?
- ✓ How would you do it differently if you were to do it again?
- ✓ Was this worthwhile?

Adapted from: L. Katz & S. Chard. (1989) *Engaging children's minds: The project approach*. Norwood, NJ. Ablex Publishing Corporation.

Related Goal: The child will make a positive contribution to the group.
Description of Activity: The teacher and child filled out this form during a conference. The child participated as a committee member for a class project and viewed a videotape of his or her committee at work. The criteria for a responsible committee member were developed by the class prior to the project and are used as a reference for the assessment. The section "I would like to work on" is used as a guide for subsequent conferences.
I did these things well:
I would like to work on:
 □ Comments were assisted by teacher □ Comments were unassisted
Responsible committee members (children and teacher develop this list together) Toke turns

Teacher

Take turns

Child

- Have jobs
- Use words to tell others what they need
- Put things where they belong at cleanup time
- Respect others' work
- Tell about their ideas
- Listen to others tell about their ideas
- Help others when asked
- Ask for help when needed
- Use inside voices
- Stays in their own work area

Note: Assessments for this activity focused on goals for responsibility and cooperation. Other focus goals might have included the areas of problem-solving, communication, and ability to plan and complete a task. It is essential that the focus for assessment and the means used to document the behaviors are developed with the activities. This page is an example of a documentation form for the grocery store project.

Child Self-assessment

Research Project—Other Project Topic or Project	Date			
Research Project Question				
Did I answer my question? Did I solve my problem?				
Did I work well with my partner/team/by my	self?			
What kind of job did I do on my project?				
If I could change one thing about my project,	I would change			
In my project I did Reading	Speaking			
Writing	Working with numbers			
Listening	Measuring			
Adding	Problem solving			
Student Comments				
Teacher Comments				
Signatures				

Project Information Sh		Data		
Child's Name			Date	
Working Situation				
Origination of Idea				
<u>-</u>	<u>-</u>	-	e been addressed through this dimension, concept or skill.)	
Communication				
Letter Recogni	tion		Letter/Sound Relationship	
Speaking				
Writing				
Information Processing Found information on hi Logical and Analytical T Counting Adding Measurement Classification Problem Solvin	Thinking (computation)		Number Recognition/Writing Subtracting Conservation of amount Sequencing/Ordering	
Productive Work Ethic Worded well by Was persistent			Worked well with others Produced quality work	
Other				

Individual and Small Group Studies

Another way in which teachers plan for integrated curriculum, teaching, and learning is by allowing for independent and small group study based on a child's (or small group's) interest and curiosity about the world. The aim is to help children become independent learners. Topics may be initiated spontaneously by the child or a small group of children. The teacher offers resources and teaches the skills and strategies needed individually or through class instruction.

Advantages

- Learning is more natural, rather than contrived or forced
- The child may be able to follow through independently
- Individual needs are more likely to be met
- This approach gives the child real reasons to read, write, and compute
- Children inspire other children

Limitations

- Some children need considerable time playing, watching, listening, and observing before they participate at this level
- Access to the library is essential
- Teachers may feel uncomfortable with some of the ambiguity that comes with the facilitative role

Within the context of the classroom, the teacher responds to an individual child's interest while the class is engaged in other self directed learning. It takes a particular attitude, considerable practice and a store of resources to work effectively this way.

- The teacher is a learner *with* the child, rather than the expert.
- The teacher supports rather than interferes with the child's work.
- The teacher is sensitive to the degree and direction of the child's interest, taking care not to

overwhelm the child with suggestions and ideas.

- The teacher lets the study develop naturally, aware of the standards and benchmarks addressed, for example, reading comprehension, appropriate use of technology, communicating content learned.
- The teacher realizes that the process of learning is as important as the content.
 The child is learning to be a learner.



An example of such a study (Ants) can be found in the section, "Technology in the Primary Curriculum." At the conclusion of the study, it is important for the child to have an opportunity to share the study with others, (a teacher, classmate, administrator, another class). Ways of communicating what has been learned may include:

- A *HyperStudio* presentation
- An oral report illustrated with drawings, charts, and models
- Reading a book the child wrote or dictated and illustrated

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